

FORM-PTO-1449 (REV. 7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 730033.409	APPLICATION NO. 09/441,411
<b>INFORMATION DISCLOSURE STATEMENT</b> (Use several copies if necessary)		APPLICANTS Nathalie B. Scholler et al.	
		FILING DATE November 16, 1999	GROUP ART UNIT <del>1633</del> 1632

### U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AmB	AA	5,478,556	12/26/95	Elliott et al.	424	852	
AmB	AB	5,571,711	11/05/96	Van der Bruggen et al.	435	240.2	
AmB	AC	5,596,090	01/21/97	Hoke et al.	435	6	
AmB	AD	5,683,886	11/04/97	Van der Bruggen et al.	435	7.24	
	AE						

### FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
AmB	AF	EP 0668350A1	08/23/95	EPO	—	—		
AmB	AG	GB 2241703	9/11/91	United Kingdom	—	—		
AmB	AH	JP 9-75090	3/25/91	Japan (+ English Abstract)	—	—		X
AmB	AI	WO 96/11279	04/18/96	WIPO	—	—		

### OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AmB	AJ	Adema et al., "Molecular Characterization of the Melanocyte Lineage-Specific Antigen gp100," <i>The Journal of Biological Chemistry</i> 269(31):20126-20133, 1994.
↓	AK	Banchereau, "Interleukin-4," in Angus W. Thomson (ed.), <i>The Cytokine Handbook</i> , Academic Press Limited, California, 1991, pp. 119-148.
↓	AL	Bargmann et al., "Multiple Independent Activations of the <i>neu</i> Oncogene by a Point Mutation Altering the Transmembrane Domain of p185," <i>Cell</i> 45:649-657, 1986.
↓	AM	Barnd et al., "Specific, Major Histocompatibility Complex-Unrestricted Recognition of Tumor-Associated Mucins by Human Cytotoxic T Cells," <i>Proc. Natl. Acad. Sci. USA</i> 86:7159-7163, 1989.
AmB	AN	Baselga et al., "Recombinant Humanized Anti-HER2 Antibody (Herceptin™) Enhances the Antitumor Activity of Paclitaxel and Doxorubicin Against HER2/ <i>neu</i> Overexpressing Human Breast Cancer Xenografts," <i>Cancer Research</i> 58:2825-2831, 1991.

EXAMINER Anne-Marie Baker	DATE CONSIDERED 12/30/00
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	BA						
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<b>FOREIGN PATENT DOCUMENTS</b>							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
AMB	BF	WO 96/40039	12/19/96	WIPO			
AMB	BG	WO 98/08947	03/05/98	WIPO			
	BH						
	BI						
<b>OTHER PRIOR ART</b> <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>							
AMB	BJ	Bier et al., "Anti-(Epidermal Growth Factor) Receptor Monoclonal Antibodies for the Induction of Antibody-Dependent Cell-Mediated Cytotoxicity Against Squamous Cell Carcinoma Lines of the Head and Neck," <i>Cancer Immunol. Immunother.</i> 46:167-173, 1998.					
	BK	Borriello et al., "Differential Expression of Alternate mB7-2 Transcripts," <i>Journal of Immunology</i> 155(12):5490-5497, 1995.					
	BL	Buonavista et al., "DNA Immunization with a Combination of Rat Neu Antigen, CD86, and 4-1BB Ligand Results in the Generation of HER-2/neu (HER-2) Antigodies in Neu Transgenic Mice," <i>Cancer Gene Therapy</i> 5(6):S2, Abstract No. O-5, 1998.					
	BM	DeGrado et al., "Sequence and Structural Homologies Among Type I and Type II Interferons," <i>Nature</i> 300(25):379-381, 1982.					
AMB	BN	Disis et al., "Existent T-Cell and Antibody Immunity of HER-2/neu Protein in Patients with Breast Cancer," <i>Cancer Research</i> 54:16-20, 1991.					
EXAMINER <i>Amie Marie Baker</i>				DATE CONSIDERED <i>12/30/00</i>			
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APPLICANTS

Nathalie B. Scholler et al.

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*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
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## FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
CB					

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AmB	CC	Ehrenfeld and Semler, "Anatomy of the Poliovirus Internal Ribosome Entry Site," <i>Current Topics in Microbiology and Immunology</i> 203:66-83, 1995.
	CD	Emtage et al., "Enhanced Interleukin-2 Gene Transfer Immunotherapy of Breast Cancer by Coexpression of B7-1 and B7-2," <i>Journal of Interferon and Cytokine Research</i> 18(11):927-937, 1998.
	CE	Farrar and Schreiber, "The Molecular Cell Biology of Interferon- $\gamma$ and Its Receptor," <i>Annu. Rev. Immunol.</i> 11:571-611, 1993.
	CF	Freeman et al., "B7, A New Member of the Ig Superfamily with Unique Expression on Activated and Neoplastic B Cells," <i>J. of Immunol.</i> 143(8):2714-1722, 1989.
	CG	Freeman et al., "Murine B7-2, an Alternative CTLA4 Counter-Receptor that Costimulates T Cell Proliferation and Interleukin 2 Production," <i>J. Exp. Med.</i> 178:2185-2192, 1993.
	CH	Freeman et al., "Structure, Expression, and T Cell Costimulatory Activity of the Murine Homologue of the Human B Lymphocyte Activation Antigen B7," <i>J. Exp. Med.</i> 174:625-631, 1991.
	CI	Gold and Freedman, "Demonstration of Tumor-Specific Antigens in Human Colonic Carcinomata by Immunological Tolerance and Absorption Techniques," <i>J. Exp. Med.</i> 121(3):439-462, plate 35-plate 39, 1965.
✓	CJ	Goodwin et al., "Molecular Cloning of a Ligand for the Inducible T Cell Gene 4-1BB: A Member of an Emerging Family of Cytokines with Homology to Tumor Necrosis Factor," <i>Eur. J. Immunol.</i> 23:2631-2641, 1993.
AmB	CK	Gray et al., "Expression of Human Immune Interferon cDNA in <i>E. coli</i> and Monkey Cells," <i>Nature</i> 295:503-508, 1982.

EXAMINER

Anne Marie Baker

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12/30/00

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Nathalie B. Scholler et al.

## FILING DATE

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## GROUP ART UNIT

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**FOREIGN PATENT DOCUMENTS**

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
					YES NO
DB					

**OTHER PRIOR ART** (Including Author, Title, Date, Pertinent Pages, Etc.)

AmB	DC	Greene et al., "Covalent Dimerization of CD28/CTLA-4 and Oligomerization of CD80/CD86 Regulate T Cell Costimulatory Interactions," <i>The Journal of Biological Chemistry</i> 271(43):26762-26771, 1996.
	DD	Hellström and Hellström, "T Cell Immunity to Tumor Antigens," <i>Critical Reviews in Immunology</i> 18:1-6, 1998.
	DE	Hoffman et al., "Antitumor Activity of Anti-Epidermal Growth Factor Receptor Monoclonal Antibodies and Cisplatin in Ten Human Head and Neck Squamous Cell Carcinoma Lines," <i>Anticancer Research</i> 17:4419-4426, 1997.
	DF	June et al., "Role of the CD28 Receptor in T-Cell Activation," <i>Immunol. Today</i> 11:211-216, 1990.
	DG	Kawakami et al., "Cloning of the Gene Coding for a Shared Human Melanoma Antigen Recognized by Autologous T Cells Infiltrating Into Tumour," <i>Proc. Nat. Acad. Sci. USA</i> 91:3515-3519, 1994.
	DH	Keegan et al., "The Interleukin-4 Receptor: Signal Transduction by a Hematopoietin Receptor," <i>J. Leukocyt. Biol.</i> 55:272-279, 1994.
	DI	Kim et al., "Development of a Multicomponent Candidate Vaccine for HIV-1," <i>Vaccine</i> 15(8):879-883, 1997.
	DJ	Kwon and Weissman, "cDNA Sequences of Two Inducible T-Cell Genes," <i>Proc. Nat. Acad. Sci. USA</i> 86:1963-1967, 1989.
AmB	DK	Li et al., "Costimulation by CD48 and B7-1 Induces Immunity Against Poorly Immunogenic Tumors," <i>J. Exp. Med.</i> 183:639-644, 1996.

EXAMINER

Arnette Marie Baker

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	EB						
<b>OTHER PRIOR ART</b> <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>							
AmB	EC	Linsley et al, "CD28 Engagement by B7/BB-1 Induces Transient Down-Regulation of CD28 Synthesis and Prolonged Unresponsiveness to CD28 Signaling," <i>J. Immunol.</i> 150(8):3161-3169, 1993.					
	ED	Linsley et al., "Human B7-1 (CD80) and B7-2 (CD86) Bind with Similar Avidities but Distinct Kinetics to CD28 and CTLA-4 Receptors," <i>Immunity</i> 1:793-801, 1994.					
	EE	Liu, "Vaccine Developments," <i>Nature Medicine Vaccine Supplement</i> 4(5):515-519, 1998.					
	EF	Melero et al., "Amplification of Tumor Immunity by Gene Transfer of the Co-Stimulatory 4-1BB Ligand: Synergy with the CD28 Co-Stimulatory Pathway," <i>Eur. J. Immunol</i> 28:1116-1121, 1998.					
	EG	Pardoll, "Cancer Vaccines," <i>Nature Medicine Vaccine Supplement</i> 4(5):525-531, 1998.					
	EH	Petit et al., "Neutralizing Antibodies Against Epidermal Growth Factor and ErbB-2/neu Receptor Tyrosine Kinases Down-Regulate Vascular Endothelial Growth Factor Production by Tumor Cells <i>In Vitro</i> and <i>In Vivo</i> ," <i>American Journal of Pathology</i> 151(6):1523-1530, 1997.					
	EI	Pietras et al., "Antibody to HER-2/neu Receptor Blocks DNA Repair After Cisplatin in Human Breast and Ovarian Cancer Cells," <i>Oncogene</i> 9:1829-1838, 1994.					
↓	EJ	Plowman et al., "Heregulin Induces Tyrosine Phosphorylation of HER4/p180 <sup>erbB4</sup> ," <i>Nature</i> 366:473-475, 1993.					
AmB	EK	Rees et al., "Bicistronic Vector for the Creation of Stable Mammalian Cell Lines that Predisposes All Antibiotic-Resistant Cells to Express Recombinant Protein," <i>Biotechniques</i> 20(1):102-109, 1996.					
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FA							
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FB							
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AmB	FC	Reiter and Rapport, "Dual Effects of Cytokines in Regulation of MHC-Unrestricted Cell Mediated Cytotoxicity," <i>Crit. Rev. Immunol.</i> 13(1):1-34, 1993.					
↓	FD	Rinderknecht et al., "Natural Human Interferon-γ," <i>J. Biol. Chem.</i> 259(11):6790-6797, 1984.					
↓	FE	Sugimoto et al., "Efficient Expression of Drug-Selectable Genes in Retroviral Vectors Under Control of an Internal Ribosome Entry Site," <i>Bio/Technology</i> 12:694-698, 1994.					
↓	FF	Topalian et al., "Human CD4+ T Cells Specifically Recognize a Shared Melanoma-Associated Antigen Encoded by the Tyrosine Gene," <i>Proc. Nat. Acad. Sci. USA</i> 91:9461-9465, 1994.					
↓	FG	Trowbridge and Omary, "Human Cell Surface Glycoprotein Related to Cell Proliferation is the Receptor for Transferrin," <i>Proc. Nat. Acad. USA</i> 78(5):3039-3043, 1981.					
↓	FH	Udayachander et al., "Anti-Tumor Activity of Monoclonal Antibody CIBCNSH3 Generated to the Human EGF Receptor," <i>Hum. Antibodies</i> 8 (2):60-64, 1997, abstract only.					
↓	FI	van den Bruggen et al., "A Gene Encoding an Antigen Recognized by Cytolytic T Lymphocytes on a Human Melanoma," <i>Science</i> 254:1643-1647, 1991.					
↓	FJ	Wang and Siddiqui, "Structure and Function of the Hepatitis C Virus Internal Ribosome Entry Site," <i>Curr. Top. Microbiol. Immunol</i> 203:99-115, 1995.					
AmB	FK	Weber et al., "Tumor Immunity and Autoimmunity Induced by Immunization with Homologous DNA," <i>J. Clin. Invest</i> 102:1258-1264, 1998.					
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GA							
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						YES	NO
GB							
<b>OTHER PRIOR ART</b> <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>							
AMB	GC	Yoshino et al., "Association of HER2/neu Expression with Sensitivity to Tumor-Specific CTL in Human Ovarian Cancer," <i>J. Immunol.</i> 152:2393-2400, 1994.					
AMB	GD	Zitvogel et al., "Interleukin-12 and B7.1 Co-Stimulation Cooperate in the Induction of Effective Antitumor Immunity and Therapy of Established Tumors," <i>Eur. J. Immunol.</i> 26:1335-1341, 1996.					
	GE						
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